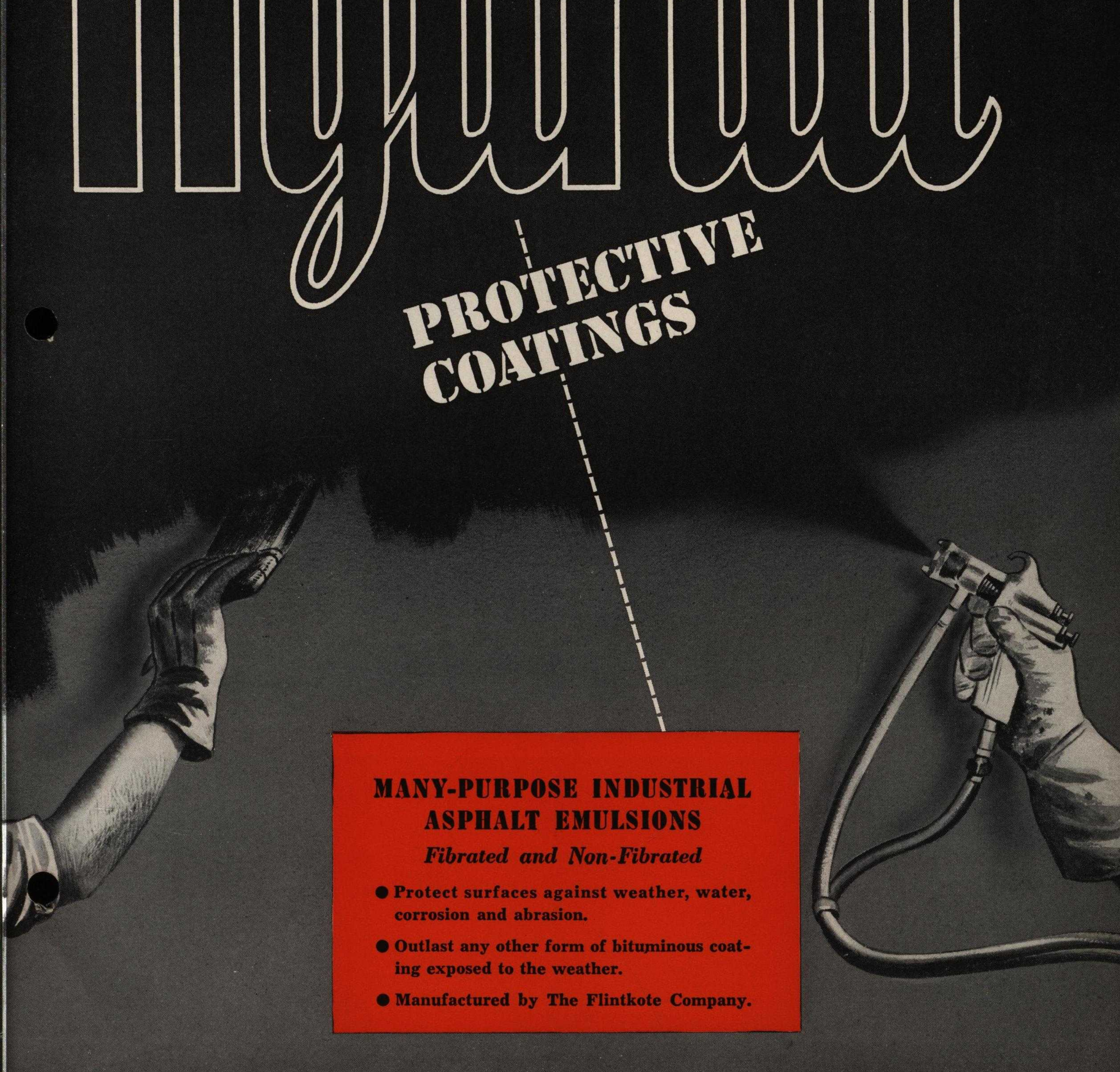
FLINTKOTE

Hydralt

PROTECTIVE COATINGS



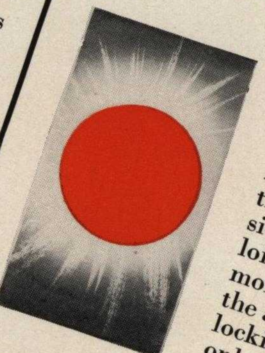
MANY-PURPOSE INDUSTRIAL ASPHALT EMULSIONS

Fibrated and Non-Fibrated

- **Protect surfaces against weather, water, corrosion and abrasion.**
- **Outlast any other form of bituminous coating exposed to the weather.**
- **Manufactured by The Flintkote Company.**

Remember this

Cold-applied . . . Fire safe— Hydralt Protective Coatings eliminate the danger of fire. They are used cold and may be diluted slightly with water if necessary for ease of application. The hazards of fire in heating solid bitumen are well known, as are the dangers of cutback types which employ solvents, if exposed to sparks or flames.



Stable Emulsions . . . Will No Flow— Hot bitumen and cutback asphalts will flow under heat. Hydralt Protective Coatings, on the other hand, are stable emulsions. The use of a *mineral* colloid serves to eliminate internal molecular flow and to reinforce the asphalt coating with an interlocking structure that can be seen only under the microscope.

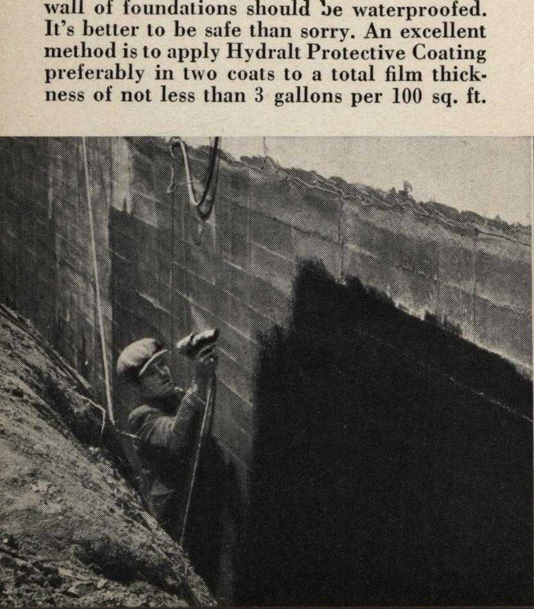
Won't Crack, Alligator or Carbonize— Hydralt Protective Coatings are far superior to hot bitumen and asphalt cutback types under prolonged weather exposure. They will not crack, craze, alligator or carbonize when applied in proper thicknesses of coating, as do the older types of hot asphalt or cutbacks. In addition to the reinforcing factor of the mineral colloid, the emulsification process permits the use of softer, better weathering asphalts.

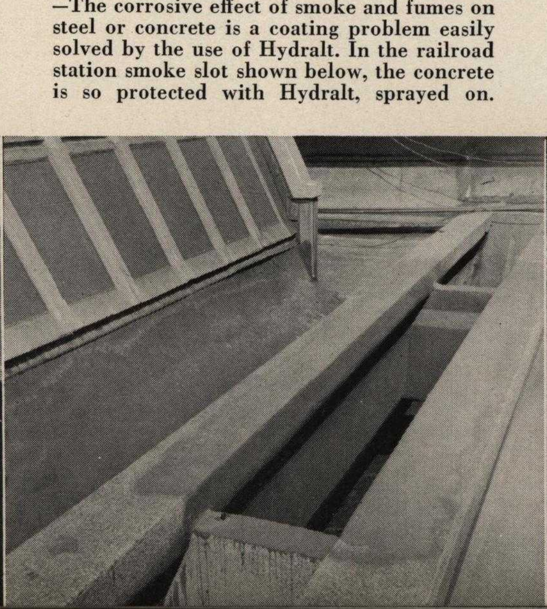
Most Modern Form . . . Easy to Use... Odorless— No heavy kettles or other heating machinery and no protective equipment against toxicity are required with Hydralt Protective Coatings. Cold applied directly from the containers in which they are furnished, these emulsions are ready for application by brush, trowel, or spray gun. The coating job is accomplished quickly and easily, with less trouble and at much lower application cost.

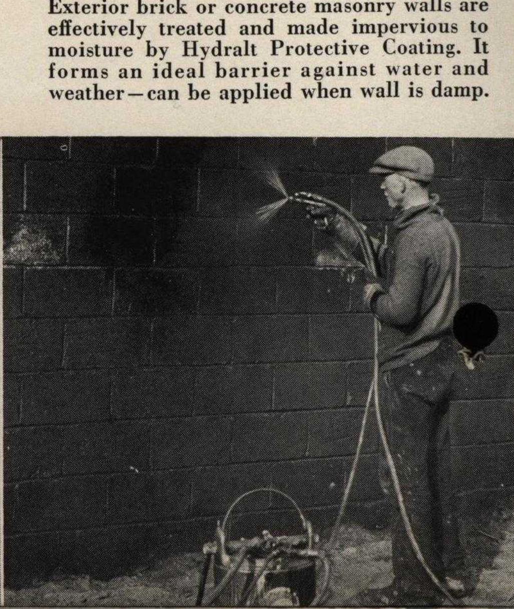
FOUNDATION PROTECTION—The exterior wall of foundations should be waterproofed. It's better to be safe than sorry. An excellent method is to apply Hydralt Protective Coating preferably in two coats to a total film thickness of not less than 3 gallons per 100 sq. ft.

PROTECTION AGAINST SMOKE AND FUMES—The corrosive effect of smoke and fumes on steel or concrete is a coating problem easily solved by the use of Hydralt. In the railroad station smoke slot shown below, the concrete is so protected with Hydralt, sprayed on.

WATERPROOFING AND DAMPPROOFING—Exterior brick or concrete masonry walls are effectively treated and made impervious to moisture by Hydralt Protective Coating. It forms an ideal barrier against water and weather—can be applied when wall is damp.







name... FLINTKOTE Hydralt*

*Trade Mark Reg. U. S. Pat. Off.

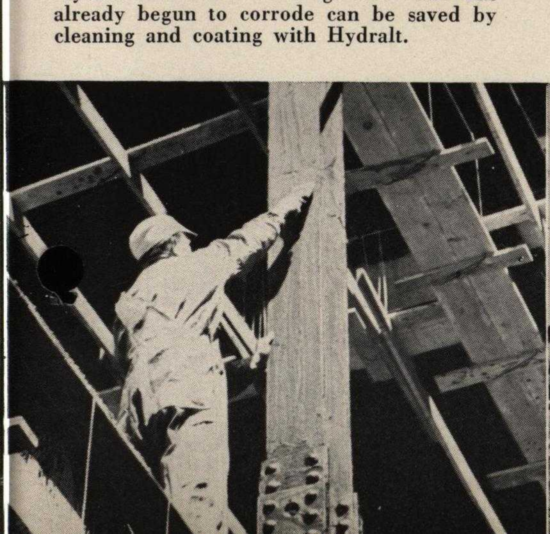
FOR WATERPROOFING • DAMPPROOFING • METAL PROTECTION

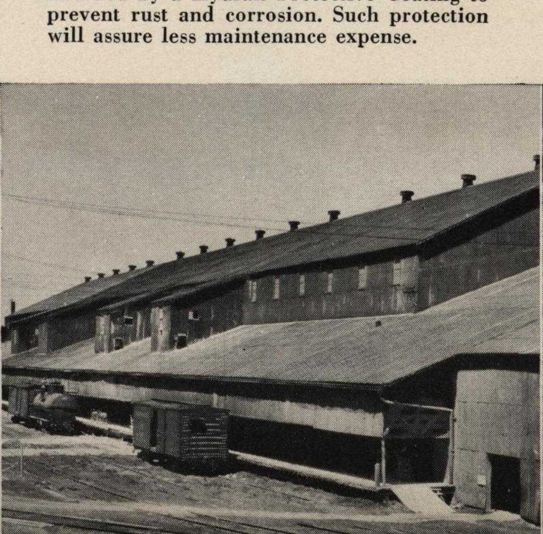
Flintkote Hydralt Protective Coatings, being emulsions, have fundamental advantages over asphalt cutbacks (asphalt reduced to fluid in a solvent) and hot asphalt (asphalt reduced to fluid by heat). Also, better weathering qualities and greater durability are obtained by the use of softer, more ductile asphalts. Upon application of the emulsion the vehicle evaporates, allowing the asphalt particles to join, or coalesce, into a continuous film. Such a film possesses the inherent protective properties of the original asphalt without any change or impairment from solvents or heat. Hydralt Protective Coatings will not flow or sag, crack, craze or alligator when exposed to the extremes of weather. They are non-inflammable and non-toxic to use. You may apply Hydralt with confidence for all types of weather protection, waterproofing and dampproofing, as well as metal coating to prevent corrosion from weather, smoke or fumes.

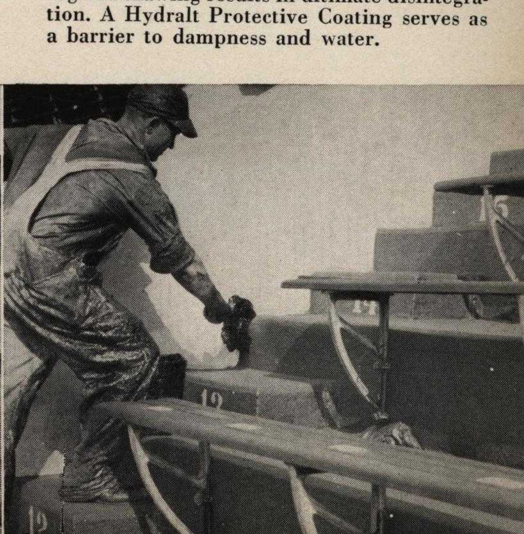
STEEL PROTECTION—Corrosion causes tremendous losses year after year. This loss can be prevented if the metal is protected with Hydralt Protective Coating. Steel that has already begun to corrode can be saved by cleaning and coating with Hydralt.

METAL COVERED BUILDINGS—Corrugated metal exposed to weather, acid fumes, smoke or salt atmosphere needs the extra protection afforded by a Hydralt Protective Coating to prevent rust and corrosion. Such protection will assure less maintenance expense.

WEATHERPROOFING OUTDOOR STRUCTURES—Moisture infiltration of porous masonry followed by alternating cycles of freezing and thawing results in ultimate disintegration. A Hydralt Protective Coating serves as a barrier to dampness and water.

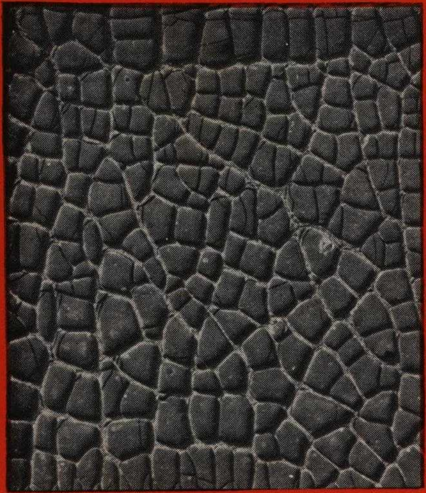






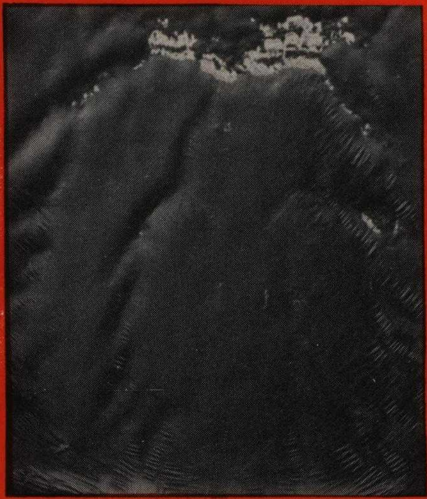
STUDY THESE RESULTS!

These unretouched photographs of test panels of a variety of bituminous coatings subjected to actual roof-top weathering (at The Flintkote Research Laboratory, East Rutherford, New Jersey) clearly demonstrate the high quality of Hydralt Protective Coatings. These superior weather and corrosion resistant industrial asphalt emulsion coatings retain their elasticity indefinitely without crazing, cracking, oxidizing or blistering.



HOT ASPHALT COATINGS have the disadvantages as shown here of flowing under heat, cracking at low temperatures, oxidizing, crazing and alligatoring after exposure to the elements.

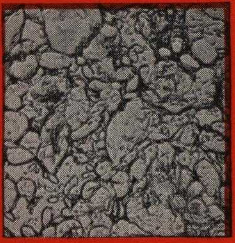
HYDRALT PROTECTIVE COATING – This photograph shows a sample on steel, exposed continuously since 1928. After 18 years the asphalt emulsion film is pliable and free of oxidation.



CUTBACK ASPHALT COATING – This photograph graphically shows the tendency of this type to soften and flow under ordinary heat, finally causing a failure of the film after 1 year exposure.

Hydralt Protective Coating under the microscope – This is a thin film of Hydralt Protective Coating magnified 300 times. Left, the wet film at time of application. Right, the dried film with the asphalt washed out with a solvent to show the interlocking reinforcement formed by the mineral colloid.

Hydralt is the brand name for Flintkote Industrial Asphalt Emulsion Coatings of the stable, non-flowing, non-staining, mineral colloid type.



FOR LASTING PROTECTION, INSIST ON FLINTKOTE HYDRALT PROTECTIVE COATINGS

Technical information, test data and suggested application specifications are available without obligation. Phone or write the address below.

Flintkote-Products for Industry

THE FLINTKOTE COMPANY • INDUSTRIAL PRODUCTS DIVISION

FLINTKOTE INDUSTRIAL PRODUCTS

30 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.

PRINTED IN U.S.A.

HYDRALT* PROTECTIVE COATINGS

Many Purpose Industrial Asphalt Emulsions—Clay Type—Applied Cold—Fire-Safe—Non-Toxic—Will Not Flow Under Heat or Crack at Low Temperature

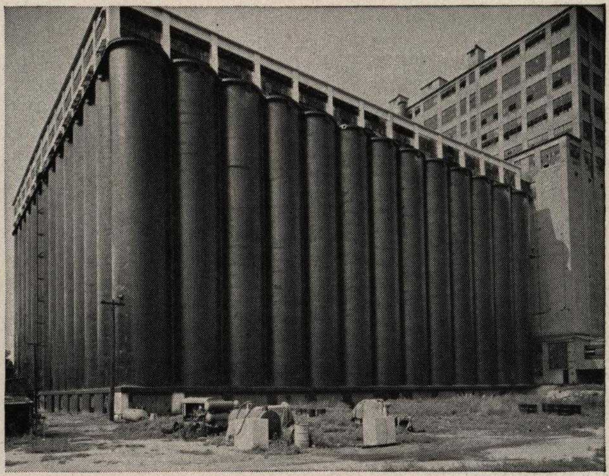
GENERAL DISCUSSION

Flintkote Hydralt Protective Coatings have fundamental advantages over asphalt cutbacks (asphalt reduced to fluid in a solvent) and hot asphalt (asphalt reduced to fluid by heat). Hydralt Protective Coatings are made from soft, ductile asphalts that insure long durability when exposed to weathering. Dried films of these emulsions do not flow when subjected to high temperatures due to the unique method of manufacturing these coatings, but the use of these soft asphalts as cut-backs or by hot application methods would not be practical since the asphalt so applied would sag and flow off at summer temperatures.

Upon application of the emulsion the water evaporates, allowing the minute particles of asphalt to join, or coalesce, into a continuous film. Such a film possesses the inherent protective properties of the original asphalts without any change or impairment from solvents or heat.

Flintkote Hydralt Protective Coatings will not flow under extreme heat, due to the interlocking structure in the film created by the mineral colloid. A blow torch applied to the rear or front of a steel plate held in a vertical position will not cause the dried emulsion film to sag or flow. Nor will the dried film flash; rather it will char in place if the flame is applied long enough.

Under long exposure to weather, Flintkote Hydralt Protective Coatings will neither crack, craze nor alligator. The film remains elastic and smooth, resisting progressive oxidation for many years when applied in the proper thickness. Samples of Flintkote Hydralt Protective Coating on steel have withstood continuous outdoor exposure in northern climate for as long as 18 years, with no perceptible disintegration of surface film or evident rusting of the steel which it protects.



Flintkote Hydralt Protective Coating serves to prevent further weather damage to this large concrete grain elevator which had begun to show signs of deterioration. Photographed prior to application of aluminum paint.

PRODUCT INFORMATION

Type C-13-HPC

Flintkote Hydralt Protective Coating (Type C-13-HPC) is an asphalt emulsion of heavy painting consistency, and contains no fillers or fibres. It is tackier and made of softer asphalts than some other emulsions, later described. Type C-13-HPC is used as a general purpose protective coating for steel, masonry and other surfaces. It is extremely resistant to weather, both high and freezing temperature, smoke and acid fumes. It is used as a priming coat for cold-laid Industrial Asphalt Mastic Flooring serving as the bonding coat; also, as the priming coat for fibrated asphalt emulsion protective coatings which are applied by trowel over masonry and insulation materials to resist weather and abrasion.

This superior weathering asphalt emulsion coating is used without heating and may be applied either by brush or spray.

C-13-E

Flintkote Hydralt Protective Coating (Type C-13-E) is an asphalt emulsion of heavy painting consistency, containing no fillers or fibres. It is applied by brush or spray as a general purpose protective coating over all types of surfaces and is especially treated to resist very severe conditions of dampness or continuous contact with water. For example, Hydralt Protective Coating (Type C-13-E) is preferred for coating the interior of steel water tanks, underground masonry walls, concrete slabs on ground, etc.

C-13-C4

Flintkote Hydralt Protective Coating (Type C-13-C4) is a lightly fibrated asphalt emulsion of heavy painting consistency especially designed for brush and spray application where a lightly reinforced film is deemed desirable.

C-13-A

Flintkote Hydralt Protective Coating (Type C-13-A) is an asphalt emulsion fibrated with asbestos fibre to a light troweling plastic consistency. It is frequently applied by trowel to surfaces previously primed with nonfibrated Hydralt Protective Coating (Type C-13-HPC) or (Type C-13-E).

Hydralt Protective Coating (Type C-13-A) is used extensively as a protective coating for thermal insulation materials applied on outside conduits, tanks, boilers, digestors and other processing equipment. In addition to the weather protection afforded, this type of coating serves as an effective barrier against corroding fumes and smoke.

Type C-13-A is also used in protecting cold storage insulation, as a mastic trowel coat over cork board and blocks to make them impervious to water and moisture throughout the life of the coating. For conditions where abrasion is severe, sharp sand is added to the emulsion to produce a harder mastic coating, or Flintkote Premix No. 5 may be used for this purpose.

Special precautions should be observed in coating insulation as to the preparation of surface, priming, wire reinforcing and thickness of coating applied. Recommended practice and suggested specifications are available from The Flintkote Company.

Thermalkote*

Flintkote Thermalkote is a more heavily fibrated type of insulation coating than Hydralt Protective Coating (Type C-13-A) containing approximately twice as much asbestos fibre and allowing for a much heavier thickness of material in a single trowel application.

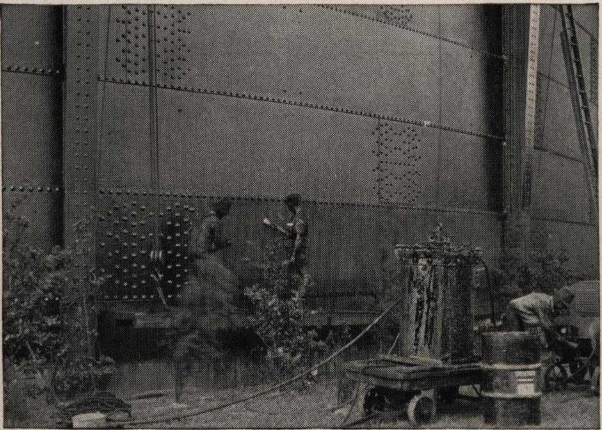
Caution: Hydralt Protective Coatings and Thermalkote must be protected from freezing in the containers and during application. After the coating has dried, neither heat nor cold will affect it provided the thickness of the film is not less than the manufacturer's recommendations for the exposure.

Containers:

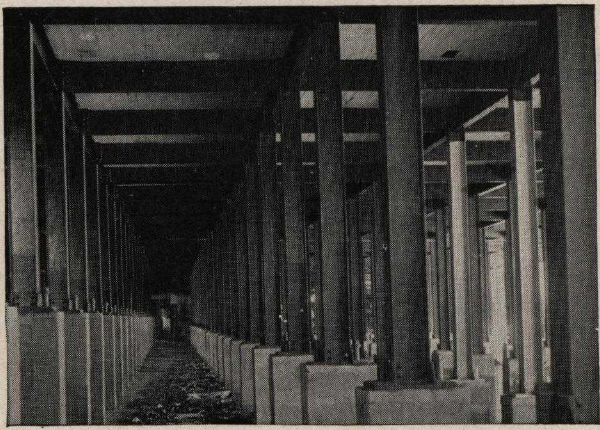
Hydralt Protective Coatings—1, 5, 30, 55 gallons.
Thermalkote — 50, 150, 300, 500 lb. drums.

*(T.M. Reg. U.S. Pat. Off.)

*Hydralt is the brand name for Flintkote Industrial Asphalt Emulsion Coatings of the stable, non-flowing, non-staining, mineral colloid type.



This large gas storage tank was given a spray application of Flintkote Hydralt Protective Coating to protect the steel from weather and corrosion.



The steel columns and girders of this wharf structure are exposed to excessive dampness. They are protected by a coating of Flintkote Hydralt.

FLINTKOTE

INDUSTRIAL ASPHALT EMULSIONS
CUTBACK ASPHALT COATINGS

HYDRALT PROTECTIVE COATINGS
ASPHALT SATURATED MEMBRANE

ASPHALT MASTICS AND SEMI-MASTICS
SPANDREL WATERPROOFING CLOTH

WATERPROOFING AND DAMPPROOFING PRODUCTS

30 ROCKEFELLER PLAZA
NEW YORK 20, N. Y.

PAUL P. COBB
INDUSTRIAL MAINTENANCE & PROTECTIVE MATLS.
611 OLIVE STREET, SAINT LOUIS, MISSOURI

FLINTKOTE WATERPROOFING

FLINTKOTE QUALITY AND SERVICE

The Flintkote Company, during its 45 years existence, has developed a line of products which are specifically designed to serve the processes of waterproofing and dampproofing. These products have gained an enviable reputation for Flintkote and have long been associated with leadership in the maintenance and new construction fields. In many instances, they exceed in quality and performance the minimum standards upon which specifications are generally drawn.

The Industrial Products Division of The Flintkote Company maintains a staff of engineers and technical field men whose services are available without obligation for consultation in preparing specifications and in developing job techniques.

FLINTKOTE INDUSTRIAL ASPHALT EMULSIONS

Flintkote Industrial Asphalt Emulsions comprise grades of asphalt chosen for their high ductility, better waterproofing characteristics and durability. These blends of selected asphalts are water dispersed or held in suspension through the use of a *mineral* colloid which serves to eliminate internal molecular flow and reinforce the coating with an interlocking structure that can be seen only under the microscope. Such emulsions are known as stable or clay type and are distinguished from soap type or road emulsions. After the emulsion is spread as a coating and the water evaporates, a live, resilient, waterproof and weather resistant film of about 98% pure bitumen remains. Flintkote Industrial Asphalt Emulsions are further characterized by the fact that they are applied without heating or the use of solvents, are non-toxic, will not crack at low temperature, flow under extreme heat, craze, alligator or oxidize when exposed to weather or water. They offer, in addition, greatly improved and easy application by trowel, brush or spray gun.

No single Flintkote Industrial Asphalt product is a "cure all" for every coating problem. Consequently, a number of products, both fibrated and non-fibrated, are produced. Each is designed for the particular purpose or set of conditions that may be encountered. Flintkote engineers are in a position to offer an unbiased recommendation as to the most suitable type.

Spray application of HYDRALT Protective Coating

Cutback Coatings—Asphalt Saturated Membrane Waterproofing Asphalts—Asphalt Mastics

Waterproofing and dampproofing are processes which depend for their success on the use of quality materials correctly applied by experienced contractors in accordance with specifications drawn for the conditions found. Inasmuch as each waterproofing and dampproofing problem presents its own individual set of conditions, no attempt is made here to describe the many uses of the above named Flintkote Products. It is suggested that a Flintkote representative be consulted on the selection of materials for the particular project.

PRODUCT	DESCRIPTION	RECOMMENDED USES
FLINTKOTE ASPHALT PRIMER	A thin penetrating asphalt cutback primer.	To prepare masonry surfaces for the application of asphalt coatings.
FLINTKOTE CUTBACK DAMPPROOFING	A non-fibrated highly flexible liquid asphalt	For brush or spray application to interior of exterior walls (above grade) under minimum dampness conditions.
FLINTKOTE SEMI-MASTIC DAMPPROOFING	A fibrated cutback asphalt dampproofing for brush application only.	For interior of exterior walls (above grade) to provide intermediate film thickness. Also suitable for waterproofing exterior masonry walls (below grade).
FLINTKOTE MASTIC DAMPPROOFING	A heavily fibrated cutback asphalt dampproofing for trowel application only.	For interior of exterior walls (above grade) under severe conditions where heavy film thickness is desirable. Also suitable for waterproofing exterior masonry walls (below grade).
HYDRALT PROTECTIVE COATING (Type C-13-E)	Non-fibrated Industrial Asphalt Emulsion — clay type.	For spray or brush application to interior of exterior masonry walls (above grade). Assures excellent bond in presence of dampness in the walls at times of application. Apply at temperatures over 40° F.

AND DAMPPROOFING

SUGGESTED SPECIFICATIONS (CONDENSED)

General Discussion — Above ground and below grade conditions may be vastly different, just as well drained soil will present a simple problem as compared to that for poorly drained places or where hydrostatic pressure exists at times. Location, rainfall, humidities etc. all have a bearing on the problem.

Preparation of Surfaces — The masonry surface to be waterproofed shall be free from sharp projections. Holes, joints and cracks shall be pointed up, door and window frames caulked and surfaces cleaned of all dust, dirt and loose particles.

Waterproofing Exterior of Walls (below grade)

(1) Membrane waterproofing for areas subject to extremely wet ground conditions. Apply a coat of Flintkote Asphalt Primer to cleaned wall at the rate of 1 gallon per 100 sq. ft. and allow to dry. Follow with moppings of Flintkote High Ductility Waterproofing Asphalt, applied hot, into which is embedded Flintkote Asphalt Saturated Membrane in the following manner: The first strip shall be of half width; the second of full width, lapped completely over the first sheet; and the third and each succeeding strip shall be full width and lapped half width so that there will be two layers of fabric at all points with head laps not less than 2 inches wide. All end laps shall be at least 12 inches. The entire surface then shall be given a final mopping of hot asphalt. Under no circumstances shall one layer of fabric touch another at any point, or show on the surface. There must be at least three complete moppings of asphalt for such 2-ply membrane waterproofing.

An alternate for intermediate conditions is to prime the wall with Flintkote Asphalt Primer, allow it to dry, and then apply 1 ply of Flintkote Asphalt Saturated Membrane, lapped at least 4 inches, and embedded in hot moppings of Flintkote High Ductility Waterproofing Asphalt.

(NOTE: For excessive hydrostatic pressure or unusual conditions, additional plies of membrane may be required.)

(2) For moderate exposure and intermittant contact with water. Apply HYDRALT Protective Coating (Type C-13-E), preferably in two coats to a total film thickness of not less than 3 gallons per 100 sq. ft. For ease of application, this Industrial Asphalt Emulsion may be diluted slightly with clean, cool water. The coating may be applied by brush or spray and shall extend beyond the bottom of the wall over a concrete or mastic cove built at the juncture of the wall and footing. Backfill carefully to avoid punctures in the coating. If subject to abrasion, use fibrated HYDRALT Protective Coating Mastic (Type C-13-A) applied by trowel over a prime coat of HYDRALT Protective Coating (Type C-13-HPC) to build up film thickness. Strips of Flintkote Asphalt Saturated Membrane should be embedded in the protective coating over construction joints, cracks or other points of weakness.

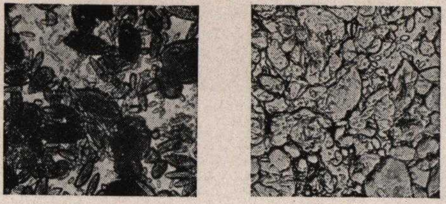
Protection Course — Cement mortar, brick set in hot asphalt mastic, asphalt plank, insulation board or asphalt mastic shall be provided over exterior waterproofing of all types below grade under heavy fills or ballast to serve as protection against puncture. For special conditions involving free running water, acid or alkaline solutions, apply to The Flintkote Company for detailed instructions.

Waterproofing and Dampproofing Exterior Walls (above grade) — Apply a coating of Flintkote HYDRALT Protective Coating (Type C-13-E) preferably in two coats to a total film thickness of 3 gallons per 100 sq. ft. The first coat of 1 gallon per 100 sq. ft. may be diluted with up to 15% clean, cool water to serve as primer, followed by the second coat of 2 gallons per 100 sq. ft. which may be diluted slightly for ease of application.

Dampproofing the Interior of Exterior Walls (above grade) — Apply a trowel coat of Flintkote Mastic Dampproofing to cleaned wall, in and around all chases, grooves or slots, around all columns and other projections and following all breaks in walls, turned out 12 inches on ceiling and floor arch. This coating when dry shall be at least ⅛ inch thick — covering capacity 12 sq. ft. per gallon. (NOTE: if troweling is impractical, apply two coats of Flintkote Semi-Mastic Dampproofing by brush at the rate of not less than 1 gallon per 80 sq. ft. each coat.)

PRODUCT	DESCRIPTION	RECOMMENDED USES
FLINTKOTE WATERPROOFING ASPHALT	A highly flexible ductile asphalt for hot application.	For hot mopping all types of membrane waterproofing.
FLINTKOTE R-70 ASPHALT EMULSION	A stable quick-setting soap type emulsified asphalt, dries to tacky finish.	Recommended only on surfaces not exposed to weather.
FLINTKOTE ASPHALT SATURATED MEMBRANE	An open mesh, asphalt saturated cotton membrane, 36 in. wide, in rolls 50 lineal yards. Also made in narrow widths.	For use as reinforcing membrane combined with waterproofing asphalt. One or more plies are used depending on conditions. Gives maximum protection.
FLINTKOTE SPANDREL WATERPROOFING CLOTH	A cotton membrane coated both sides with flexible waterproofing. Tough and durable; finished weight 40 oz. per sq. yd.	For spandrel beam waterproofing treatment. (See details of typical installations page 4).
FLINTKOTE CAULKING COMPOUND	An elastic non-staining compound in white or gray colors, gun or knife grade.	For caulking around windows and doors, pointing of terra cotta, masonry, etc.

FLINTKOTE PROTECTIVE COATINGS



Wet Emulsion **Mineral Structure**

This is a thin film of Hydralt Protective Coating magnified 300 times. Left, the wet film at time of application. Right, the dried film with the asphalt washed out with solvent to show the interlocking reinforcement formed by the mineral colloid.

*Hydralt**

HYDRALT is the brand name for Flintkote Industrial Asphalt Emulsions of the stable, non-flowing, non-staining, mineral colloid type.

These superior, weather and corrosion resistant industrial asphalt emulsion coatings *will outlast any other form of bituminous coatings exposed to weather.* They are non-inflammable — no heating required as they are applied cold — no toxicity as they contain no solvents. Use them with confidence. They will not flow or sag, crack, craze or alligator when exposed to the extremes of weather.

*Reg. U. S. Pat. Office

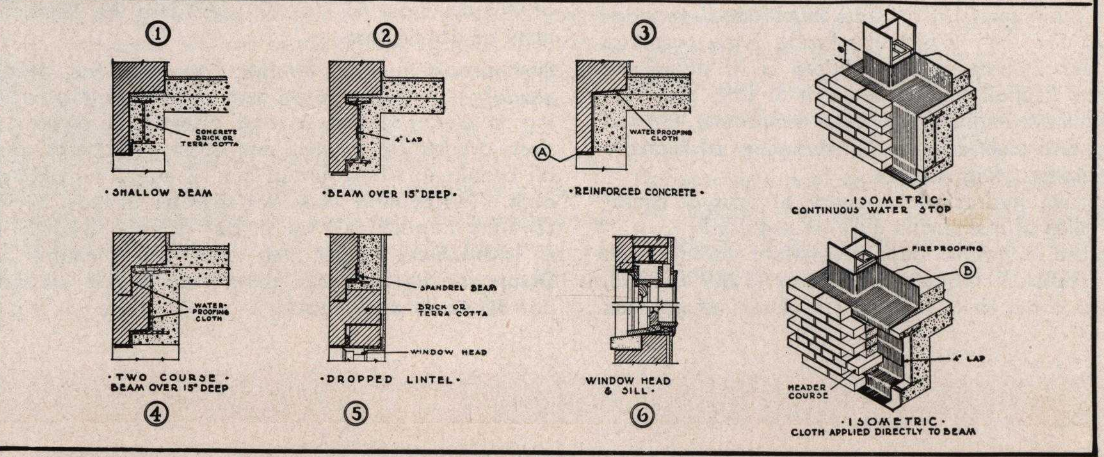
FLINTKOTE SPANDREL WATERPROOFING CLOTH

Too much emphasis cannot be placed upon the importance of using Flintkote spandrel beam treatment in the design of structures. Flintkote Spandrel Waterproofing Cloth is manufactured to give tough, durable service. It provides a continuous waterproofing course at these critical points. Complete suggested specifications will be furnished on request.

McLaughlin Air Service

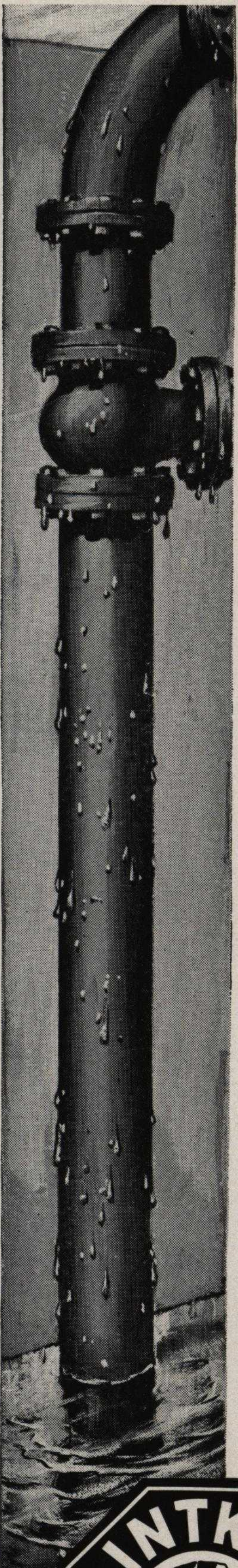
Red Hook Project, Brooklyn, N. Y.
15,535 window heads waterproofed with Flintkote Spandrel Cloth

DETAILS OF INSTALLATION



Flintkote Spandrel Waterproofing Cloth is bedded in Flintkote Mastic Dampproofing.

THE FLINTKOTE COMPANY
INDUSTRIAL PRODUCTS DIVISION
30 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.



SAFE, DRY FLOORS...

Applied

OVER HEAD!

Floors get slippery when condensed moisture drips from overhead pipes.

Wood and metal floors can be rotted or rusted into failure years before their time by moisture.

Cement floors become unsafe . . . unsightly . . . insanitary.

Flintkote Anti-Sweat Compound, applied to roofs, ceilings, exposed pipes and conduits . . . almost anywhere moisture collects . . . will stop condensation-drip.

That's why we say you can have safe, dry floors . . . applied overhead.

You will find this newcomer to the well-known ranks of Flintkote Industrial Products an asset to your plant's operation. It is effective under wide ranges of temperature and humidity.

With it, you can protect metal and masonry surfaces from weathering and corrosion.

Flintkote Anti-Sweat Compound contains no material subject to mold growth, rot or decay. This gives you extra years of service at top efficiency.

You can apply Flintkote Anti-Sweat by hand, trowel it, brush it or spray it on.

Any way you apply it gives you double protection . . . against condensation-drip against weathering and corrosion.

Write for full information on this and other Flintkote Industrial Products. In specialized cases, our research staff . . . with almost 50 years' experience in the field . . . will welcome the opportunity to work with you.

FLINTKOTE
INDUSTRIAL
PRODUCTS

THE FLINTKOTE COMPANY • 30 Rockefeller Plaza, New York 20, N. Y.
Industrial Products Division
ATLANTA • BOSTON • CHICAGO HEIGHTS • DETROIT • LOS ANGELES
NEW ORLEANS • WACO • WASHINGTON • TORONTO • MONTREAL

Digitized by:

INTERNATIONAL

ASSOCIATION
FOR
PRESERVATION
TECHNOLOGY,
INTERNATIONAL
www.apti.org

**BUILDING
TECHNOLOGY
HERITAGE
LIBRARY**

https://archive.org/details/buildingtechnologyheritagelibrary

From the collection of:

**NATIONAL
BUILDING
ARTS
CENTER**

http://web.nationalbuildingarts.org